

In Reply to Non-Final Office Action Mailed October 7, 2010

Amendment to the Claims

This listing of Claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-2. (Canceled)

3. (Previously Presented) A composition of matter comprising:
a liquid continuous phase,
a liquid discontinuous phase which is substantially immiscible in the
continuous phase and

a surfactant,

wherein the continuous phase has a high volume resistivity, the
discontinuous phase is electrically charged and the surfactant is selected to
not significantly reduce the volume resistivity of the continuous phase.

4. (Original) A composition of matter as in Claim 3 wherein the
surfactant has a first part which is compatible with the continuous phase and
a second part which is compatible with the discontinuous phase.

5. (Previously Presented) A composition of matter as in Claim 3
further comprising in the discontinuous phase a compound selected from the
group consisting of a bio-active agent, an activated nucleoside amidite (A, C,
G or T), an activated oligonucleotide, a reagent or reactant including an acid
or a base, a blocking chemical, a de-blocking chemical, an organic or
inorganic derivatisation chemical, a catalyst, a pharmaceutical, a dye, a
pigment, and combinations thereof.

6-15. (Canceled)

16. (Previously Presented) A composition of matter as in Claim 3 further comprising a charge control agent.

17. (Previously Presented) A composition of matter as in Claim 16 wherein the charge control agent is selected from the group consisting of an acid and its salts, an organic acid and its salts, an ionic compound, a zwitterionic compound, and combinations thereof.

18. (Previously Presented) A composition of matter as in Claim 16 wherein the charge control agent is selected from the group consisting of metallic soaps wherein the metal includes: barium, calcium, magnesium, strontium, zinc, cadmium, aluminium, gallium, lead, chromium, manganese, iron, nickel, zirconium and cobalt and the acid portion is provided by a carboxylic acid, a phospholipid, and combinations thereof, or where the continuous phase is a fluoro-chemical the charge control agent comprises a fluorine analogue of the compounds listed above.

19. (Previously Presented) A composition of matter as in Claim 3 wherein the continuous phase is present in the range of about 40 to 99.99 per cent by volume, the discontinuous phase is present in a range of from about 0.01 to 60 per cent by volume.

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20. (Previously Presented) A composition of matter as in Claim 3 wherein the discontinuous phase has a droplet size of from about 100 microns down to 0.2 microns.

21. (Currently Amended) A composition of matter as in Claim 3 wherein the emulsion is a mini-emulsion with a discontinuous phase having a droplet size from 1000 nanometres nanometers down to about 50 nanometres nanometers.

22. (Currently Amended) A composition of matter as in Claim 3 wherein the emulsion is a micro-emulsion with a discontinuous phase having a droplet size of from about 200 nanometres nanometers down to 1 nanometres nanometer.

23-33.(Canceled)

34. (Previously Presented) An emulsion comprising:
a continuous phase,
a discontinuous phase which is immiscible in the continuous phase,
and

a surfactant, the surfactant having a first part which is compatible with the continuous phase and a second part which is compatible with the discontinuous phase,

wherein the continuous phase has a high volume resistivity, the discontinuous phase is electrically charged and comprises a compound selected from the group consisting of a bio-active agent, an activated nucleoside amidite (A, C, G or T), an activated oligonucleotide, a reagent or

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reactant including acids and bases, a blocking chemical, a de-blocking chemical, an organic or inorganic derivatisation chemical, a catalyst, a pharmaceutical, a dye, a pigment, and combinations thereof and the surfactant is selected to not significantly reduce the volume resistivity of the continuous phase.

35. (Canceled)

36. (Previously Presented) A composition of matter as in Claim 18 wherein the carboxylic acid is selected from the group consisting of caproic acid, octanoic (caprylic) acid, capric acid, lauric acid, myristic acid, palmitic acid, stearic acid, oleic acid, linolic acid, erucic acid, tallitic acid, resinic acid, naphthenic acid, succinic acid, and combinations thereof.

37. (Previously Presented) A composition of matter as in Claim 19 wherein the surfactant is present in a range of about 0.01 to 20 per cent by weight.

38. (Previously Presented) A composition of matter as in Claim 16 wherein the charge control agent is present in a range of 0.01 to 10 per cent by weight.

39. (Canceled)

40. (Previously Presented) A composition of matter as in Claim 3 wherein the liquid continuous phase is electrically insulative.

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41. (Previously Presented) An emulsion as in Claim 34 wherein the continuous phase is electrically insulative.

42. (Canceled)

43. (New) A composition of matter as in Claim 3 wherein the continuous phase is selected from the group consisting of a hydrocarbon, a fluoro-chemical, a silicone fluid, and combinations thereof.

44. (New) A composition of matter as in Claim 43 wherein the hydrocarbon comprises hexane, decalin, cyclohexane, iso-octane, heptane, aromatic hydrocarbons, isodecane, or a mixture thereof.

45. (New) A composition of matter as in Claim 43 wherein the fluoro-chemical comprises a linear, cyclic or polycyclic perfluoroalkane, a bis(perfluoroalkyl)alkene, a perfluoroether, a perfluoroalkylamine, a perfluoroalkyl bromide, or a perfluoroalkyl chloride.

46. (New) A composition of matter as in Claim 43 wherein the silicone fluid comprises a polyphenylmethyl siloxane, a dimethyl polysiloxane, a polydimethyl siloxane, or a cyclic dimethyl siloxane.

47. (New) A composition of matter as in Claim 3 wherein the discontinuous phase of the emulsion is selected from the group consisting of acetone, acetonitrile, cyclohexanone, dibromomethane, dichloromethane, trichloromethane, dimethyl formamide, dioxane, 1,2-dichloroethane, nitromethane, tetrahydrofuran, toluene, decalin, dimethyl formamide,

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isobutanol, Isopar, Norpar, propylene carbonate, dimethyl sulphoxide, isopropanol/methylene chloride, nitromethane/methanol, nitromethane/isopropanol, trichloromethane/methanol, isopropanol/methylene chloride, and combinations thereof.